

## REMARKS

Applicants hereby affirm the provisional election to prosecute the invention of Group I, Claims 1-52, with traverse.

The drawings have been objected to because the reference "37" appears twice. A new Figure 4 is presented in triplicate in which the protrusions are now designated as "39".

Page 20 of the specification has been amended to reflect this change.

Claims 1, 2, 4, 6, 8, 10, 22, 29, 30, 37, 38, 43 and 46-52 have been objected to for various reasons. Claims 1 and 22 have been rejected under 35 U.S.C. 112 as being unclear. Claim 2 has been rejected under 35 U.S.C. 112 as being improper. Claim 3 has been rejected under 35 U.S.C. 112 for not setting forth any method process steps.

Claims 5, 7, 9 and 11 have been objected to because they do not specify if size of the vessels relates to length or width.

Claim 18 is objected to for lack of antecedent basis for "said securing means".

Claims 19, 20 23 and 45 have been rejected as improper.

Claims 1-12, 15, 17-19, 20, 23-29, 37-42, 45-52 have been rejected under 35 U.S.C. 102(b) as anticipated by Mohan, et al. Claims 1-11, 15, 16, 18, 19, 20, 21, 23-29, 44-52 have been rejected under 35 U.S.C. 102(b) as being anticipated by Baker, et al. Claims 2,5, 7, 9, 11 and 12 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Mohan et al. or Baker et al. Claims 5, 7, 9 and 11 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Mohan et al. or Baker et al, in view of Pham et al. Claims 13, 14 and 30-46 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Mohan et al. or Baker et al. Claim 22 has been rejected as unpatentable over Mohan et al. or Baker, et al. in view of

Antonenko et al. and/or Lantenschlager. Claim 43 has been rejected under 35 U.S.C. 103(a) as unpatentable over Mohan et al. or Baker et al. in view of Stauchfield et al.

Claims 1-52 have been cancelled and replaced by Claims 56-120 which have been drafted to overcome the objections and rejections noted above.

Claim 86 requires first and second inserts alternatively insertable into the insert-receiving space in the base of the apparatus. Each of the inserts is required to have a plurality of vessel-receiving recesses that are arranged in a different array. Each recess in each array is required to align with a different one of the liquid dispensers in the liquid handler when the insert is received in the base.

Claim 86 is similar to cancelled Claim 2 in that it requires first and second inserts although the base of the apparatus can receive only one insert in the opening at one time. Claim 2 was considered improper for that reason. However, it is respectfully submitted that Claim 2, and now Claim 86, is not improper for claiming two inserts only one of which can be received in the base at one time. It is believed that the Examiner is fundamentally in error with regard to this proposition. See §2172.05(k) of the Manual of Patent Examining Procedures, where it is stated that:

“a claim is not necessarily aggregative because the various elements do not function simultaneously”.

While that section is entitled “Aggregation”, the Examiner’s rejection is precisely what that section of the Manual deals with under that heading, and makes clear the principle that it is not a valid ground of rejection that a claim includes various elements that do not function simultaneously.

The CCPA case which the Manual cites in that connection (In Re Worrest, 96 USPQ 381 (1953)), is directly in point. There, Claims 7, 8 and 9 called for an apparatus “which includes,

inter alia, the upright shafts for alternate mounting with a short or long pivotable transfer arm”, with the short arm optionally mounted on one of those shafts, and in a particular case, the short arm may be detached and the long arm mounted on the second of the shafts. The claims had been rejected for “aggregation” because “they are directed to a feature having changeable parts which are used alternatively, and therefore, ipso facto, the claims are drawn to an aggregation which is unpatentable”. The CCPA disagreed, in an extensive and carefully reasoned opinion, saying:

“The cooperation of the means necessary to create an invention is to be measured by the purpose to be fulfilled, not by the interaction of the parts. Each factor must indeed be a condition to that result, but the whole may be a mere assemblage; the cooperation between them all may be no more than their necessary presence in a unit which shall answer a single purpose.” (Pages 286-7.)

In addition to the cases relied upon by the Worrest court, see Ex parte Christensen, et al, 6 USPQ 161, 162 (Board of Appeals 1930):

“Patents are constantly being allowed in which all of the parts of the apparatus are not utilized at the same time”.

In Ex parte Lewin, 15 USPQ 487 (1966) Claims 8, 9 and 13 were initially rejected “as vague and indefinite under 35 U.S.C . 112 (the same rationale here employed)

“since the method set forth. . . is alternative in nature”.

The Board of Appeals reversed, saying that:

“these claims are not found to be indefinite for this reason” (page 489).

More recently, in Ex parte Head, 214 USPQ 551 (Board of Appeals 1981), the claims specified that:

“any one of three methods of calculation may be used to determine specified parameters.

but the rejection under 35 U.S.C. §35 U.S.C. 112 was reversed by the Board, on the ground, totally applicable here, that:

“the artisan reading the claim would not be confused as to what the claim, considered as a whole, would preclude others from doing. Accordingly, we conclude that the mere use of an alternative expression in Claim 2 does not render the claim vague and indefinite under 35 U.S.C. 112, second paragraph” (p. 553

See, also, Ex parte Wu, 10 USPQ2d 2031 (BPAI 1989) where a rejection of a claim including

optional use of a particular substance was reversed on the ground that:

“the term ‘optionally’ clearly indicates that the polyamine may, or may not be present as a fourth component in the otherwise three component composition (page 2033)”.

Also, on point is Ex parte Wolters and Kuypens, 214 USPQ 735 (Board of Appeals, 1979) which related to a test pack for the detection and determination of a first antibody and a second antibody from different animal species. The claims were rejected under 35 U.S.C. 112, second paragraph, because of a lack of physical cooperation amongst the various components.

The Board held:

We have no doubts that the present claims comply with the statutory requirements of 35 U.S.C. 112. Attention is invited to the explanation provided by the Court at page 151 of the decision *In re Venezia*, supra: “As we view these claims, they precisely define a group of ‘kit’ of interrelated parts. These interrelated parts may or may not be later assembled to form a completed connector. \*\*\* The claimed invention does include present structural limitations on each part, which structural limitations are defined by how the parts are to be interconnected in the final assembly, if assembled.\*\*\*”

As with the kit in the *Venezia* case, each part of the test pack herein is interrelated with the others. We find the claims clear and precise. Since there appears to be no persuasive reason why claims would not be completely understandable to those skilled in this art, the rejection will not be sustained

New Claim 86 does indeed call for the alternate use of two claim elements. As the authorities cited above show, there is nothing wrong in doing that, and it is not a proper basis for rejection.

Some of applicants' original claims have been rejected under 35 U.S.C. 101 as improper "use" claims because they do not set forth any process steps. New Claim 86 requires apparatus that performs chemistry reactions in conjunction with a liquid handler. This does not make the claim a "use" claim, as it is clear that only apparatus is being claimed. The recitation of the individual liquid dispensing means of the liquid handler is required in the claim to properly understand that the recesses in each insert, although in different array, must each align with a different one of the liquid dispensing means of the liquid handler.

Claim 86 relates to the feature of alternatively insertable vessel carrying inserts, each insert having different number of vessel-receiving recesses in which the recesses in each insert align with the liquid dispensers of a liquid handler. None of the references cited teach alternatively insertable inserts with vessel-receiving recesses arranged in different arrays. Further, none of the references cited teach alternatively insertable vessel-receiving recess, where each of the recesses in each insert array aligns with the liquid dispensations in a liquid handler.

The utility of applicant's apparatus with alternatively insertable inserts is clear to one skilled in the art. In the prior art, an entirely different reactor is required when arrays including different number or size reaction vessels are required. In applicants' reactor, the same reactor can be used when different vessel arrays are required, by interchanging the insert, resulting in a great savings.

As none of the references teach interchangeable inserts with different vessel arrays, it is believed that Claim 86 is patentable over the art cited. Further, since Claims 87 through 102 are

all dependent upon Claim 86, those claims are believed patentable for the same reasons as Claim 86. Claim 87 specifies that the arrays have different numbers of recesses. Claim 88 specifies arrays with different size recesses.

Claims 90-98 further define the different numbers and size recesses. Claims 91, 93, 95 and 98 specify the recesses of different size diameters. In this regard, it is clear that reaction vessels are sized by diameter and that one skilled in the art would be familiar with that convention.

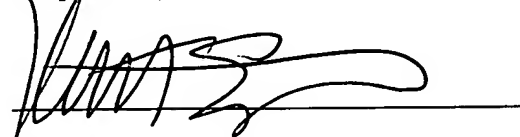
Claims 100 through 120 define other aspects of applicants' apparatus which, in combination with the alternatively insertable inserts of Claim 86, are believed to define patentable subject matter.

New Claim 106 positively recites the extraction tool. Claims 114, 115 and 116 are directed to the inclination of the insert and insert-receiving space side walls. Contrary to the Examiner's statement that configuration is not an inherent imperfection but an intended structural feature that facilitates extraction of the insert from the base. Claim 120 positively recites the magnetic stirrer means.

Claims 1-52 have been cancelled. Claims 53-85 are withdrawn. Claims 86-120 are believed to be patentable for the reasons set forth above.

This application is now believed to be in condition for allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'R. Epstein', is written over a horizontal line.

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